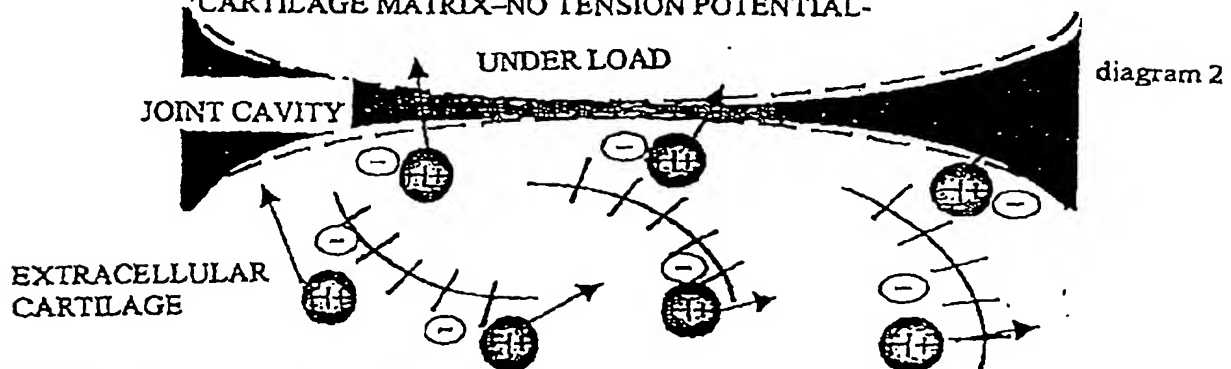
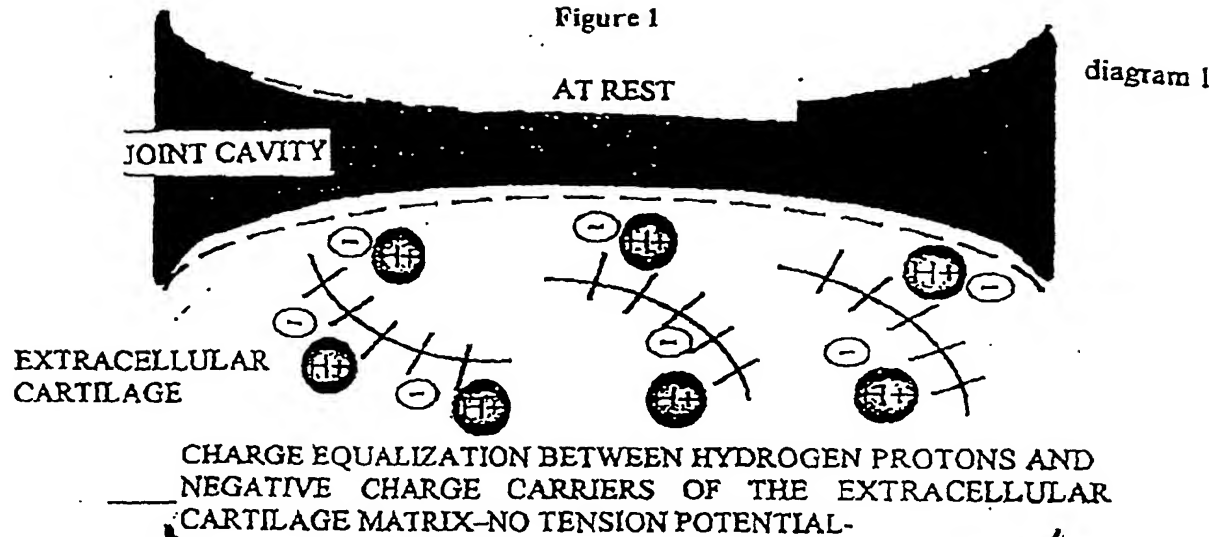
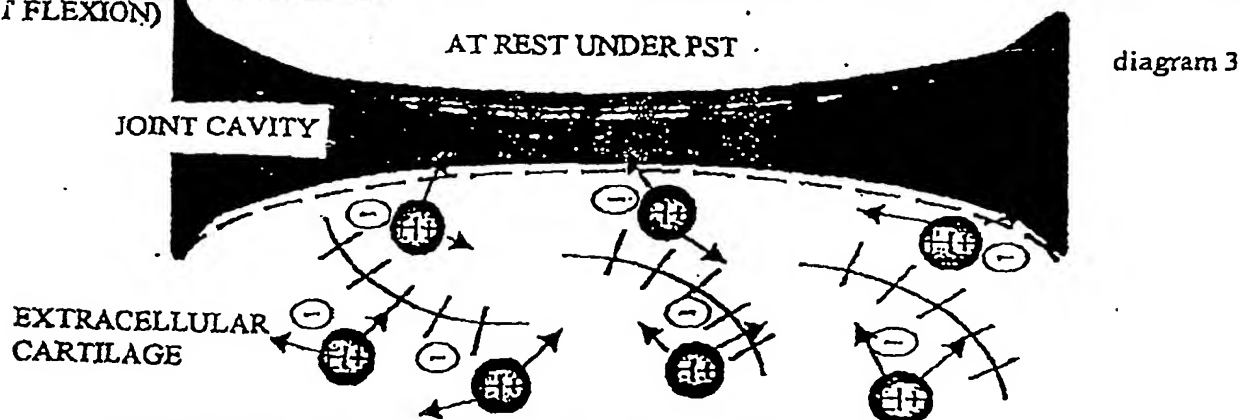


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Figure 1



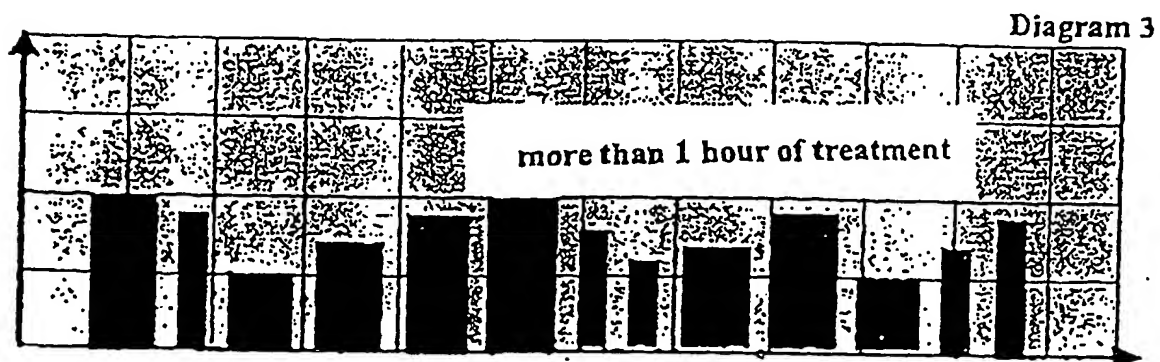
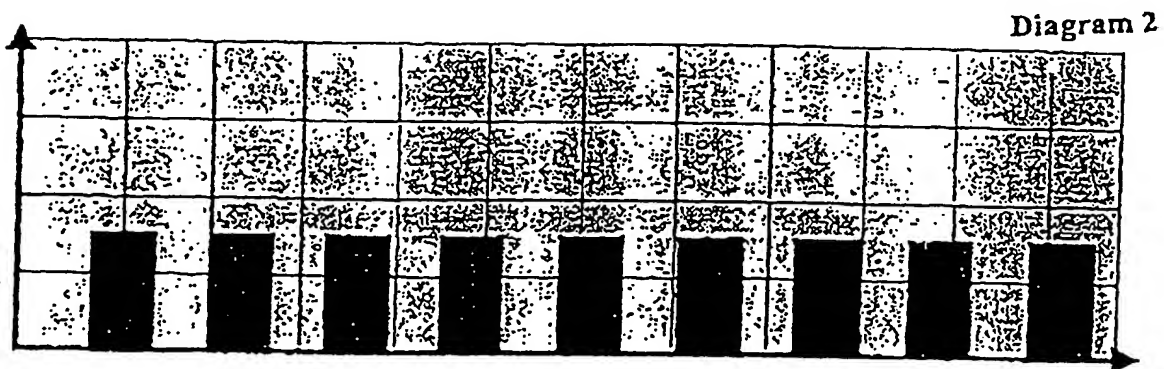
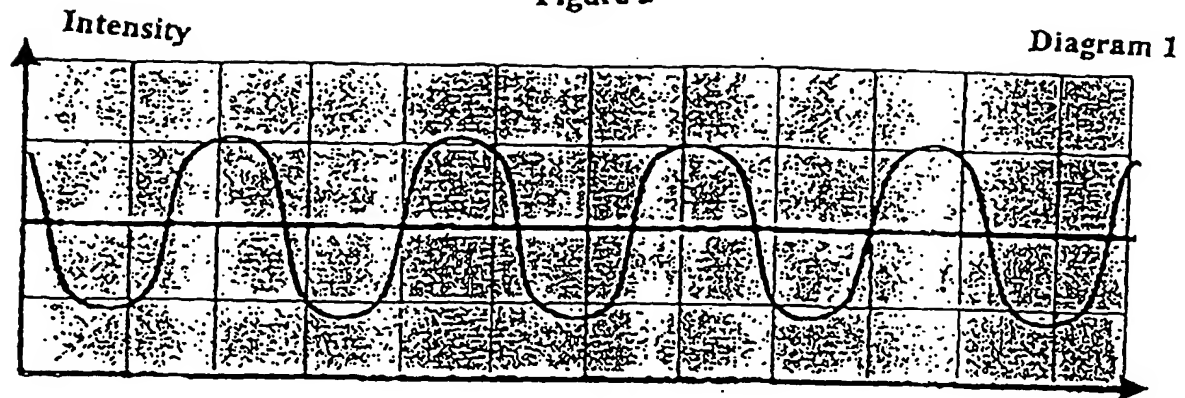
GENERATION OF A VOLTAGE POTENTIAL IN THE STRAINED JOINT BY "PRESSING OUT" FLUID FROM THE CARTILAGE TISSUE WITH DISPLACEMENT OF HYDROGEN PROTONS (ON FLEXION)



GENERATION OF A GREAT NUMBER OF ACTION POTENTIALS OF VARYING FLOW WITHIN THE JOINT VIA A FORCED MIGRATION OF HYDROGEN PROTONS WITHIN THE EXTRACELLULAR MATRIX BY ALTERNATING RECTANGULAR PULSE AS STIMULUS FOR THE CELLS OF THE CONNECTIVE TISSUE, PRIMARILY CHONDROCYTES.

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Figure 2



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Figure 3

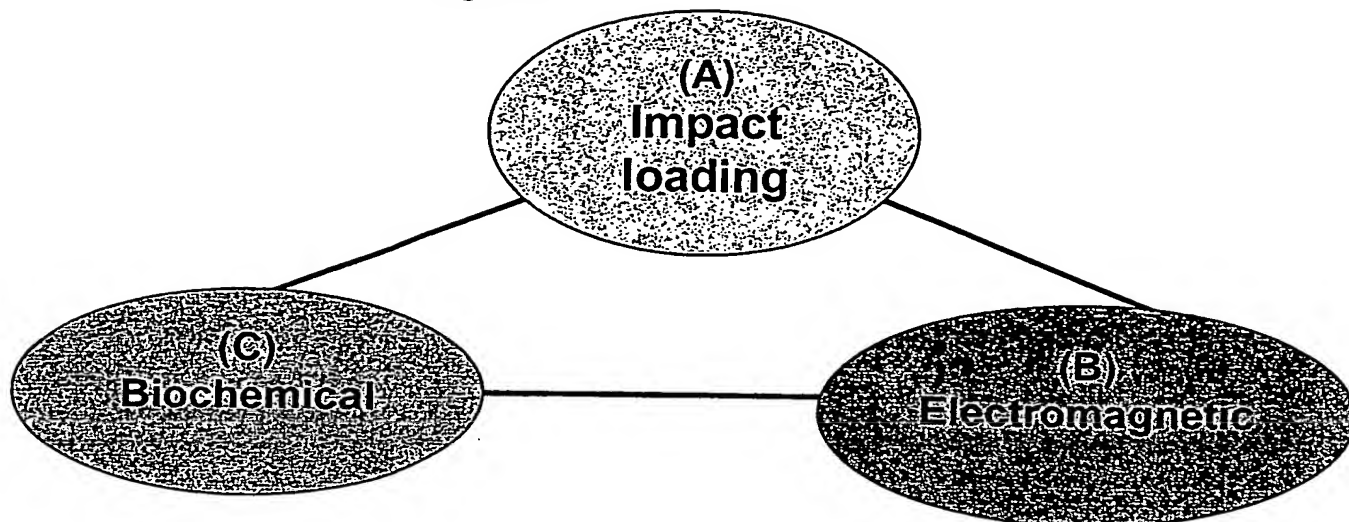


Figure 3: This figure briefly summarizes a series of events occurring at the cellular level, in response to an external/internal stimulus. In view of hard connective tissue, bone, (A) impact loading (mechanical) generates (B) a series of electric charge potentials, (biophysical; electromagnetic), subsequently modulated by surrounding connective tissue cells, to (C) activate cell signaling pathways, through various secondary messengers, gap junctions and other molecules (biochemical). One, or more pathways are subsequently activated to produce catabolic, anabolic, or other effects.